

GUJARAT TECHNOLOGICAL UNIVERSITY**ME - SEMESTER-IV • EXAMINATION- SUMMER • 2014****Subject Code: 740401****Date: 04-06-2014****Subject Name: Wireless and Mobile Network Architecture****Time: 02:30 pm - 05:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|------------|------------|---|-----------|
| Q.1 | (a) | What is handoff? Describe Inter-BS Handoff and Intersystem Handoff | 07 |
| | (b) | What is the significance of link transfer? Explain MCHO link transfer | 07 |
| Q.2 | (a) | Describe signaling system no. 7 | 07 |
| | (b) | Explain IS-41 authentication and compare "without sharing scheme" and "sharing scheme" | 07 |
| OR | | | |
| | (b) | Compare adaptive algorithm AA1 and AA2 | 07 |
| Q.3 | (a) | Draw PACS architecture and interface and describe in brief | 07 |
| | (b) | Draw GSM architecture and explain functions and significance of each block | 07 |
| OR | | | |
| Q.3 | (a) | Write a note on security in GSM networks | 07 |
| | (b) | Give comparison of HSCSD and GPRS | 07 |
| Q.4 | (a) | Write note on USSD | 07 |
| | (b) | What are the main parts of GSM SMS protocol stack? Describe following types of short message: user-specific, ME-specific and SIM-specific | 07 |
| OR | | | |
| Q.4 | (a) | Describe in brief about WAP model, gateway and protocol | 07 |
| | (b) | Compare W-CDMA and cdma2000 and explain quality of service in 3G | 07 |
| Q.5 | (a) | Describe WLL architecture with diagram | 07 |
| | (b) | Write note on mobile IP | 07 |
| OR | | | |
| Q.5 | (a) | Write a note on GSM operation and maintenance | 07 |
| | (b) | Describe international roaming for GSM | 07 |
